

What Is Claimed Is:

1. A magnetic impact tool for magnetically generating a rotational impact force in a non-contact manner, comprising:
a motor for generating rotational force,
a drive shaft rotatably driven by the motor,
a magnetic hammer rotatably moved in a coupled state with the drive shaft,

a magnetic anvil which faces the magnetic hammer and to which the rotational force is transmitted by magnetic coupling, with one of the opposing surfaces of the magnetic hammer and magnetic anvil having a magnetic pole, and the other having a magnetic pole or magnetic body;

an output shaft rotated by the magnetic anvil;
magnetic bypass means for bypassing the magnetic flux between the magnetic anvil and the magnetic hammer, and changing the state of magnetic coupling therebetween, and

changing means for changing the bypass quantity of the magnetic flux with the magnetic bypass means, with the torque transmitted from the magnetic hammer to the magnetic anvil being changed in accordance with the change in bypass quantity of the magnetic flux varied by the changing means.

2. The magnetic impact tool according to claim 1, wherein the magnetic bypass means comprises a magnetic plate, and is configured to allow the plate to be moved toward or away from the magnetic hammer by the changing means.

3. The magnetic impact tool according to claim 2, wherein the plate serving as the magnetic bypass means is configured to be able to move in the axial direction of the drive shaft.

4. The magnetic impact tool according to claim 2, wherein the plate serving as the magnetic bypass means is tiltably supported on a shaft that is orthogonal to the axial center of the magnetic hammer and the shaft is disposed in the outside of or on the external periphery of the magnetic hammer.

5. The magnetic impact tool according to claim 1, wherein the magnetic bypass means takes the form of a spiral spring that is elastically deformable in the axial direction of the magnetic hammer, one end thereof is positioned close to the end face of the magnetic hammer, and the other end thereof is configured to be able to be pulled and moved in the axial direction by the changing means.

6. The magnetic impact tool according to claim 1, wherein the magnetic bypass means is configured to be able to be moved by the changing means toward or away from the magnetic hammer in a radial direction that is orthogonal to the axial center of the magnetic hammer .

7. The magnetic impact tool according to claim 6, wherein the changing means is adapted to act by way of the centrifugal force of the rotation produced by the motor.

8. The magnetic impact tool according to claim 1, wherein the changing means is configured such that the magnetic bypass means moves in coordination with the trigger for setting the output of the motor.

9. The magnetic impact tool according to claim 2, wherein the plate serving as the magnetic bypass means takes a substantially conical shape that protrudes toward the magnetic hammer.

10. The magnetic impact tool according to claim 1, wherein the changing means is configured to allow the movement distance and movement timing of the magnetic bypass means to be set in accordance with the force with which the tool is pressed to the object to be fastened.